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10/18/00

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: October 18, 2000

SUBJECT: Pollution Report for the Taylor Apartment Mercury Spill Emergency Response, Taylor, Wayne County, Michigan

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POLREP 1 - Initial and Final with maps and photos (See Attachments Figures 1 & 2, and Photos 1, 2, & 3)

II. BACKGROUND

Site No.:	Pending
Delivery Order Number:	NA
Response Authority:	CERCLA
CERCLIS ID Number:	NA
NPL Status:	Not on NPL
MDEQ Notification:	Unknown
Latitude/Longitude:	42°11.317' North / 83°13.960' West
Start Date:	October 13, 2000
Completion Date:	NA

III. SITE INFORMATION

A. Incident Category

CERCLA-Emergency Response / PRP Clean-up

B. Site Description

1. Site Location

The Taylor Apartment Mercury Spill site is located at 16330 Weddell, Building Number 1, Taylor, Wayne County, Michigan. The apartment is part of a complex consisting of several adjacent two story rental units. The complex is bordered on the west by railroad tracks, on the east by Weddell Street, and the north and south by private residences.

2. Description of Threat

On October 13, 2000, a renter at the Taylor Apartments in Taylor, Michigan reported a mercury spill to the Poison Control Center. The house had been contaminated with mercury due to the renter's child bringing a sphygmomonometer home from school. The potentially contaminated clothing of the children was removed and they were escorted from the residence. Poison Control notified the Michigan Department of Community Health (MDCH). MDCH then notified the Wayne County Health Department and the United States Environmental Protection Agency (U.S. EPA). U.S. EPA and the Superfund Technical Assessment and Response Team (START) responded to the mercury spill at the apartment. START conducted air monitoring in the home utilizing a Lumex Real Time Portable Mercury Vapor Analyzer. Lumex concentrations of mercury vapor were detected throughout the house ranging from 0.016 to 0.125 micrograms per cubic meter (ug/m^3).

IV. RESPONSE INFORMATION

A. Current Situation:

Taylor School District's contractor, SQS, removed all identified mercury contaminated materials from the affected property, vacuumed the entire spill area and washed the floor with HgCS-102 cleaning solution. START conducted air sampling at the apartment and the samples were sent to Lockheed Martin-REAC Laboratory for analysis. Results indicated that mercury concentrations within the home ranged from 0.20 to 0.22 ug/m^3 in the breathing zone and 0.91 ug/m^3 at the floor level in the area of the mercury spill. The breathing zone concentrations are below the general residential Health Department Guidelines for mercury vapor concentrations (0.300 to 1.000 ug/m^3).

B. Actions Taken: October 13 through 16, 2000

On October 13, 2000, the U.S. EPA and START responded to a mercury spill at an apartment in Taylor, Michigan. The renter disrobed the children who had been playing with and subsequently broke the sphygmomonometer. The couch cushion had already been removed from the couch and placed in a plastic bag by the renter. START took a headspace reading of the bagged cushion and detected a mercury vapor concentration of 4.790 ug/m^3. Air monitoring was conducted within the residence and mercury vapor concentrations of 0.016 to 0.125 ug/m^3 were detected. SQS removed all materials in the residence that had contacted the mercury including: the carpet, couch, phone and the sphygmomonometer. All material was wrapped in plastic and placed in 55 gallon barrels for disposal.

Due to the potential that some of the mercury may had been tracked out of the apartment by the children, two other residences and two vehicles were screened by START with the Lumex. Air monitoring at 16314 Weddell detected mercury vapor concentrations ranging from 0.006 to 0.017 ug/m^3.

Air monitoring conducted at 4179 Longtin, Lincoln Park, Michigan detected mercury vapor concentration ranging from 0.002 to 0.200 ug/m^3. The 0.200 ug/m^3 was obtained from the washing machine which was disposed of by SQS along with all items within the washer at the time.

Two vehicles located at the Taylor apartments were screened with the Lumex. The

mercury vapor concentrations that were detected ranged from 0.014 to 0.055 ug/m^3.

Because of the heating system at the Taylor Apartments, 16330 Weddell is routinely above 80^{0}F and the house is continuously vented by the renter to reduce the heat.

On October 14, 2000, START conducted air monitoring with the Lumex at 16330 Weddell following SQS's initial clean up at the residences. The results of the air monitoring revealed mercury vapor concentrations ranging from 0.087 to 0.573 ug/m^3 in the breathing zone and 0.134 to 21.0 ug/m^3 at the floor level (See Figure 1&2). Based upon the reading SQS removed all the carpets tack strips from the room's perimeter and vacuumed the entire area with a mercury vacuum. The entire living room was then washed with Hg CS-102 and the residence was allowed to vent overnight.

On October 15, 2000, START screened 16330 Weddell with a Lumex. Detected mercury vapor concentrations ranged from 0.017 to 0.064 ug/m^3 in the breathing zone and 0.017 to 0.600 ug/m^3 at floor level. The house was allowed to vent until 2000 hours and was then screened again. Mercury vapor concentrations ranged from 0.011 to 0.024 ug/m^3 in the breathing zone and 0.038 to 0.350 ug/m^3 at floor level. The apartment was sealed and stabilized for air sampling the following day.

On October 16, 2000, START conducted air monitoring at 16330 Weddell apartment. Mercury vapor concentrations ranged from 0.138 to 0.174 ug/m^3 in the breathing zone and 0.135 to 0.600 ug/m^3 at floor level (See Figure 1&2). Air samples were collected from the living room breathing zone (in duplicate), the living room at floor level over the spill, the kitchen breathing zone, and the breathing zones in the western and eastern children's bedrooms. Samples were collected and sent to Lockheed Martin-REAC Laboratory, Edison, New Jersey for analysis using NIOSH Method 6009 Modified. The results from this analysis were as follows:

Sample Number	Sample Location	Results (ug/m^3)
WS-1	Living Room (Breathing Zone)	Faulted
WS-2 D	Living Room Duplicate (Breathing Zone)	0.20
WS-3	Living Room (Floor Level)	0.91
WS-4	Kitchen (Breathing Zone)	0.22
WS-5	West Bedroom (Breathing Zone)	0.20
WS-6	East Bedroom (Breathing Zone)	0.20

These results were provided to the Michigan Department of Community Health who then cleared the residence for occupancy.

C. Next Steps:

None

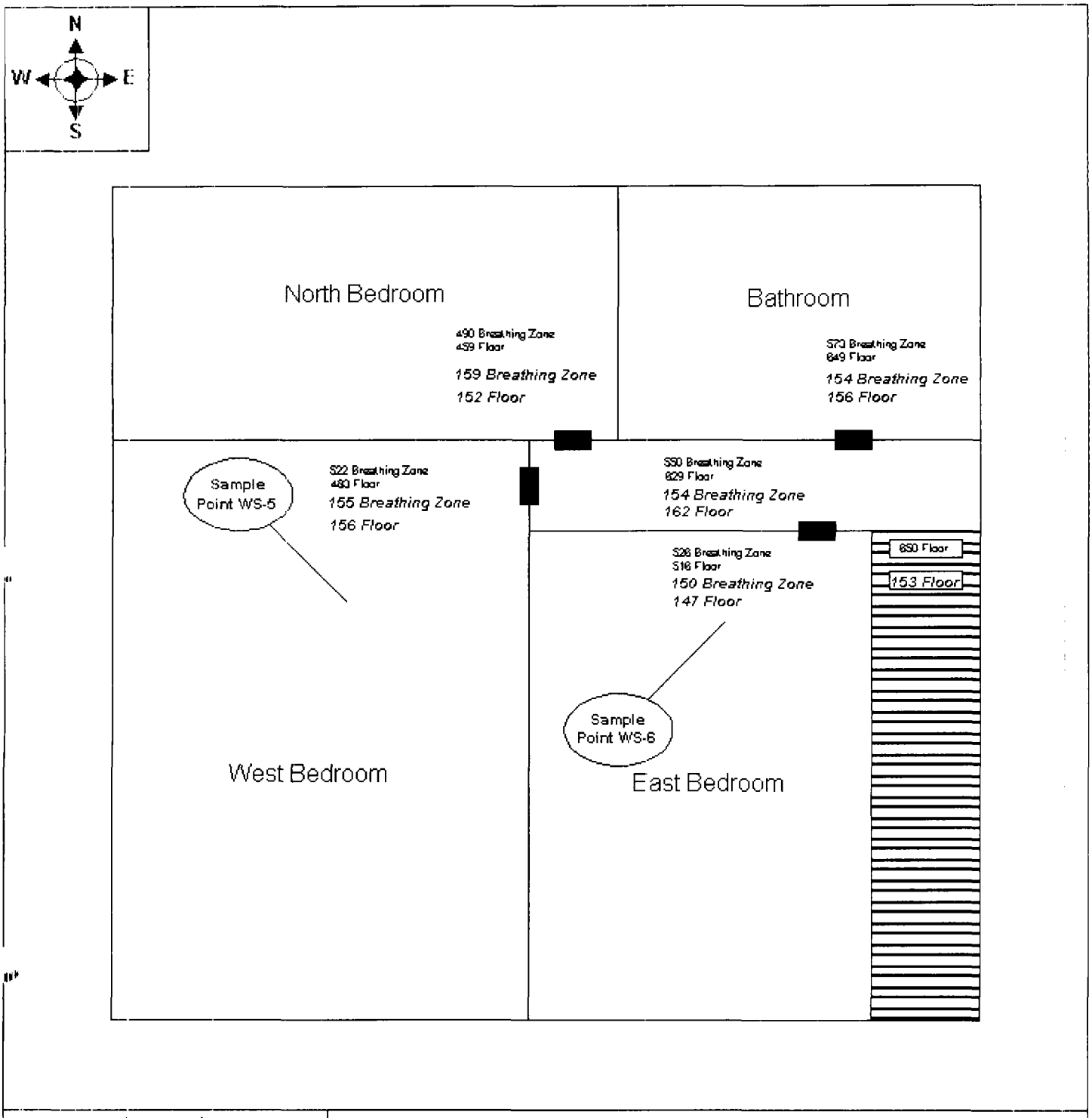
D. Key Issues:

None.

V. COST INFORMATION

Estimated site costs as of 10/19/2000:

START	$ 2,000.00
U.S. EPA	$ 2,000.00



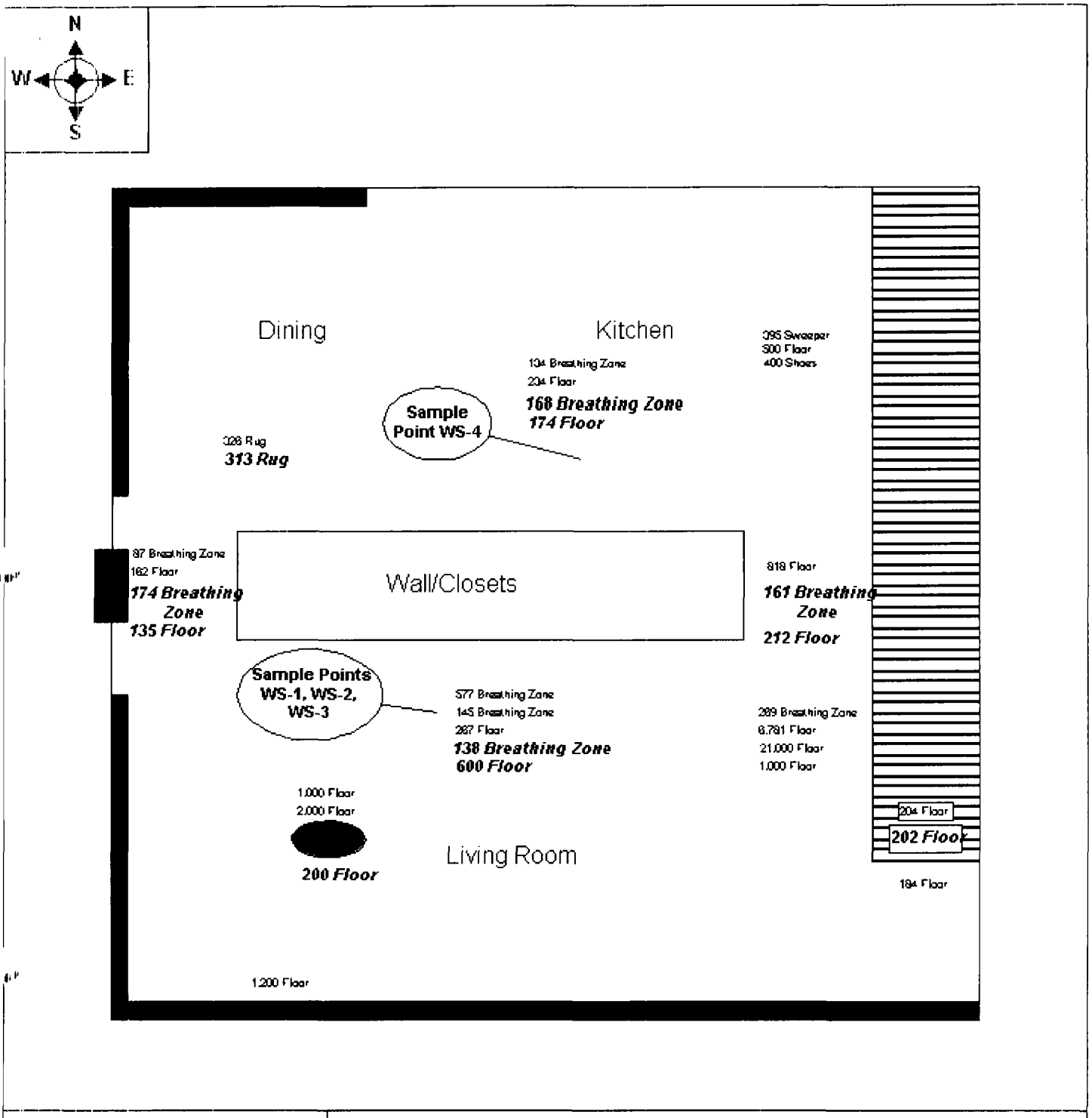
Legend

- Door
- Stairs
- 459 Lumex Readings, 10/14/00, nanograms per cubic meter
- 154 Lumex Readings, 10/16/00, nanograms per cubic meter

SOURCE/DATE
Ecology and Environment
October, 2000

ecology and environment, inc.
Superfund Technical Assessment and Response Team
Region 5

TITLE 16330 Weddell, Second Floor	FIGURE 2
SITE Taylor Apartments Mercury Spill	SCALE Not to scale
CITY **Taylor** STATE Michigan	TDD S05-0010-010



Legend Baseboard heating system Door Stairs Spill Area 577 Lumex Readings, 10/14/00, nanograms per cubic meter 313 Lumex Readings, 10/16/00, nanograms per cubic meter	ecology and environment, inc. Superfund Technical Assessment and Response Team Region 5	
	TITLE 16330 Weddell, First Floor	FIGURE 1
	SITE Taylor Apartments Mercury Spill	SCALE Not to scale
SOURCE/DATE Ecology and Environment October, 2000	CITY Taylor STATE Michigan	TDD S05-0010-010